CLAIMS

1. Method of determining the position of a mobile station in a mobile telecommunication network, the said network including a plurality of base stations designed to adopt at least on the one hand a state corresponding to periods of transmission of signals useful to determining the said position, the said mobile station, on receiving the said useful signals, making measurements of quantities of the said useful signals which are characteristic for implementing a position determination method and on the other hand a state corresponding to periods of silence during which no signal is transmitted, characterised in that it consists of providing means so that the said periods of transmission and the said periods of silence are arranged in cycles including at least one period of silence, the cycle allocated to a base station being identical to the cycle allocated to any base station adjacent to it, but is offset in time from it.

2. Measurement method according to Claim 1, characterised in that the said offset in time is equal to a sub-multiple of the duration of a cycle.

3. Measurement method according to Claim 1 or 2, characterised in that the number of periods of silence per cycle is greater than one and in that the interval of time between two adjacent periods of silence is equal to a base period which is a sub-multiple of the duration of a cycle.

4. Measurement method according to Claim 3, characterised in that the offset in time between two base stations is an integer multiple of the said base period.

5. Measurement method according to one of the preceding claims, characterised in that each cycle comprises, in addition to at least one telecommunication signals transmission period and at least one period of silence, a period of transmitting specific location signals.

6. Measurement method according to Claim 5, characterised in that the interval of time between two periods of transmitting adjacent location signals, the one between a period of transmitting location signals and a period of silence which are adjacent, the one between a period of silence S and a period of transmitting location signals E which are adjacent and the one between two adjacent periods of silence are identical and equal to the said base period.

7. Measurement method according to Claim 5 or 6, characterised in that the transmission power of the specific location signals is higher than the transmission power of the telecommunication signals.

8. Measurement method according to Claim 5, 6 or 7, characterised in that the periods of transmission of the location signals are of the same duration as the periods of silence S.

9. Measurement method according to one of the preceding claims, characterised in that each base station in the network, in order to be controlled, receives two items of information: on the one hand an item of information representing the scheme of the cycle allocated to it and on the other hand an item of information representing the offset in time of its cycle with respect to a reference.

10. Measurement method according to one of the preceding claims, characterised in that the base stations in the said network are grouped together by identical groups of adjacent base stations, the base stations in the same group having the same cycle scheme but different offsets and two base stations which correspond to each other in pairs from one group to another having their offsets in time equal.

11. Measurement method according to Claim 10, characterised in that the said base stations in a network are grouped together by a number N, the said base stations having cycles with M base periods PB greater than N.

12. Mobile telecommunication network including a plurality of base stations controlled by a control unit so that the said base stations can adopt at least on the one hand a state corresponding to periods of transmission of signals useful to a mobile station for determining its position by the use of a position determination method and on the other hand a state corresponding to periods of silence during which no signal is transmitted, characterised in that the said control unit is designed so that the said periods of transmission and the said periods of silence are arranged in cycles including at least one period of silence, the cycle allocated to a base station being identical to the cycle allocated to any base station which is adjacent to it, but is offset in time from it.

13. Network according to Claim 12, characterised in that the said offset in time is equal to a sub-multiple of the duration of a cycle.

14. Network according to Claim 12 or 13, characterised in that the number of periods of silence per cycle is greater than one and in that the interval of time between two adjacent periods of silence is equal to a base period which is a sub-multiple of the duration of a cycle.

15. Network according to Claim 14, characterised in that the offset in time between two base stations is an integer multiple of the said base period.

16. Network according to one of Claims 12 to 15, characterised in that each cycle comprises, in addition to at least one period of transmission of telecommunication signals and at least one period of silence, a period of transmission of specific location signals.

17. Network according to Claim 16, characterised in that the interval of time between two periods of transmitting adjacent location signals, the one between a period of transmitting location signals and a period of silence which are adjacent, the one between a period of silence S and a period of transmitting location signals E which are adjacent to each other and the one between two adjacent periods of silence are identical and equal to the said base period.

18. Network according to Claim 16 or 17, characterised in that the transmission power of the specific location signals is higher than the transmission power of the telecommunication signals.

19. Network according to Claim 16, 17 or 18, characterised in that the periods of transmission of the location signals are of the same duration as the periods of silence S.

20. Network according to one of Claims 12 to 19, characterised in that each base station in the network, in order to be controlled, receives two items of information: on the one hand an item of information representing the scheme of the cycle allocated to it and on the other hand an item of information representing the shift in time of its cycle with respect to a reference.

21. Network according to one of Claims 12 to 20, characterised in that the base stations in the said network are grouped together by identical groups of adjacent base stations, the base stations in the same group having the same cycle scheme but different offsets and two base stations which correspond to each other in pairs from one group to another having their offsets in time equal.

22. Measurement method according to Claim 21, characterised in that the said base stations in a network are grouped together by a number N, the said base stations having cycles with M base periods PB greater than N.